

Near Net Shape Fabrication Technology for Shape Memory Alloy Components, Phase I

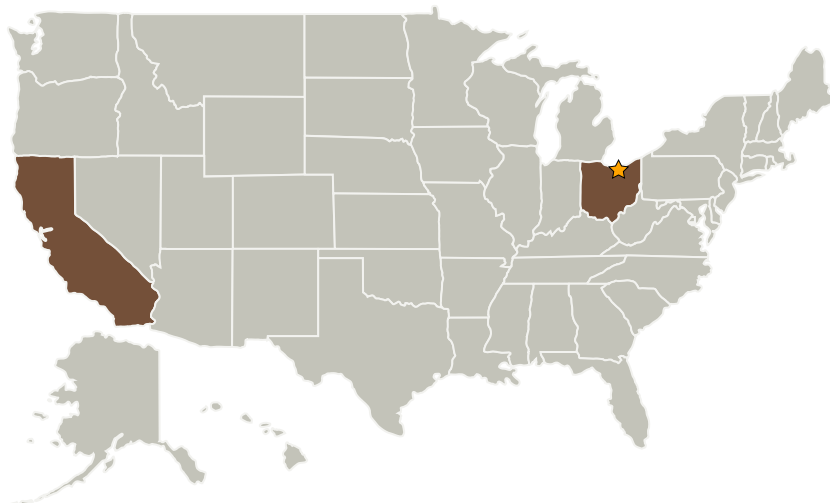
Completed Technology Project (2005 - 2006)



Project Introduction

This STTR Phase I effort proposes to develop an innovative, affordable processing route for larger-sized shape memory alloy (SMA) components. Despite significant advances over the last decade, innovative, cost-effective shape processing techniques yielding controlled microstructure-properties are still needed for SMA's. An advanced reactive metal casting technology is applied in this project to manufacture SMA's. Casting offers a relatively low-cost approach for fabricating near net-shape components, and would allow for widespread acceptance and application due to its cost-effectiveness.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★ Glenn Research Center(GRC)	Lead Organization	NASA Center	Cleveland, Ohio
Titech International, Inc.	Supporting Organization	Industry	Orange, California

Primary U.S. Work Locations

California	Ohio
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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Glenn Research Center (GRC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

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Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Principal Investigators:

James Nabity

Edward Chen

Technology Areas

Primary:

- TX12 Materials, Structures, Mechanical Systems, and Manufacturing
 - └ TX12.1 Materials
 - └ TX12.1.8 Smart Materials